

AMENDMENTS TO THE CLAIMS

1-9. (Canceled)

10. (Previously Presented) A method of modelling a network comprising operating said network as a neural network and executing a neural network modelling algorithm on said network, whereby said network models its own response to a requested action, wherein at least one subset of network nodes having at least two members are associated together and represented by a single node when said neural network algorithm is executed; said neural network modelling algorithm is executed on a sub-network of said network nodes, the sub-network being isomorphic to the network formed by said at least one subset of associated network nodes and remaining network nodes; and the network nodes are associated together such that said resulting network is isomorphic to a predetermined sub-network of network nodes.

11. (Original) A method according to claim 10, wherein said sub-network of network nodes is determined according to at least one network parameter.

12. (Previously Presented) A network arranged to operate as a neural network and to execute a neural network modelling algorithm in response to a request to execute an action on said network, whereby the network models its own response to the requested action, wherein at least one subset of network nodes having at least two members are associated together and represented by a single node when said neural network algorithm is executed; said neural network modelling algorithm is executed on a sub-network of said network nodes, the sub-network being isomorphic to the network formed by said at least one subset of associated network nodes and remaining network nodes; and the network nodes are associated together such that said resulting network is isomorphic to a predetermined sub-network of network nodes.

13. (Original) A network according to claim 12, wherein said network comprises a plurality of network nodes and at least a subset of said nodes are each arranged to execute a neural network objective function.

14. (Original) A network according to claim 13, wherein each of said subset of network nodes is arranged to maintain an information vector.

15. (Original) A network according to claim 14, wherein said information vector is representative of the state of one of the plurality of network nodes.

16. (Original) A network according to claim 13, wherein at least one of said network nodes is arranged to generate a warning if the modelled response to the requested action does not conform to at least one predetermined criteria.

17. (Original) A network according to claim 12, wherein said requested action is not executed if the modelled response does not conform to at least one predetermined criteria.

18. (Original) A network according to claim 14, wherein at least one of said subset of network nodes is arranged to maintain an information vector representative of the state of a plurality of associated ones of said network nodes.

19. (Original) A network according to claim 18, wherein the plurality of associated network nodes are associated together such that the subset of network nodes maintaining said information vectors conforms to a predetermined topology.

20-24. (Canceled)

25. (New) A method according to claim 10, wherein said network comprises a plurality of network nodes and at least a subset of said nodes are each arranged to execute a neural network objective function.

26. (New) A method according to claim 25, wherein each of said subset of network nodes is arranged to maintain an information vector.

27. (New) A method according to claim 26, wherein said information vector is representative of the state of one of the plurality of network nodes.

28. (New) A method according to claim 26, wherein each of said subset of network nodes executes said neural network objective function using at least one of said information vectors as an operand.

29. (New) A method according to claim 10, wherein a warning is issued if the modelled response to the requested action fails to conform to at least one predetermined criteria.

30. (New) A method according to claim 10, wherein said requested action is not committed if the modelled response to the requested action fails to conform to at least one predetermined criteria.